REMARKS

Regarding the specification, the examiner objected to the title as being not descriptive. It is amended.

Claims 9, 12, 13, 32, and 33 were objected to because of informalities. The claims or claims from which they depend are amended to correct the informalities.

Claims 1-12, 15, 26, 27, 32-34, 36, and 38 were "rejected under 35 U.S.C. 103(a) as being unpatentable over Applicant's admitted prior art (preamble of claim 1) ... in view of Yasada (U.S. Patent 4,676,638)." Claims 1-3, 11-14, 26-31, and 36-38 were "rejected under 35 U.S.C. 103(a) as being unpatentable over Applicant's admitted prior art (preamble of claim 1) ... in view of Pientke (U.S. Patent 8,811,793)."

Stated preliminarily, the ultimate performance of an optical precipitation sensor is very geometry specific. This is particularly true with regard to accomplishing the first listed object of having improved ambient light rejection. As can be seen the references cited by both the examiner and the applicant, rejection of ambient light that tends to hamper the performance of optical precipitation sensors has been an area of great concern and study. Yasuda '638, Pientke '793, and Koyama '037 all attempted to optimize ambient light rejection in conjunction with geometries built around flat mirrors. Nothing in these references or the references cited by the the applicant suggest that a geometry including an aspheric mirror could be devised with improved ambient light rejection characteristics.

Cleverly, the inventors of the instant invention discovered that aspheric mirrors could be part of a geometry that efficiently optimized performance of an optical precipitation sensor by employing the collimating and focusing qualities of aspheric mirrors and their unique shape to partially wrap around primarily the receiver so as to shield it from ambient light.

Claim 1 has been amended to include a combination of the limitations not obvious to combine from Yasuda '638 or Pientke '793, with the preamble of claim 1, because Yasuda '638 and Pientke '793 are both are directed specifically to the geometries taking advantage of flat mirrors. In both, elaborate additional elements were needed to accomplish shielding ambient light from the receiver. Neither Yasuda '638 or Pientke '793 taught, or even suggested, that a geometry could be devised where the collimating and focusing characteristics of aspheric mirrors could be accommodated and their curvature so placed as to create a

geometry where the mirrors could wrap around the receiver as a shield. The limitation of claims 2-4 are now part of claim 1. Claims 2-4 are accordingly canceled. The portion "said second reflective ... automotive glass toward said receiver" define limitations to a geometry that includes an aspheric mirror that places such a mirror in relationship to other portions of the sensor to accomplish ambient light rejection. Accordingly, claim 1 is believed to be in condition for allowance.

Claims 5-7 are amended to change them from being indirectly depending from claim 1 to being directly depending from claim 1. Accordingly, these claims are believed to be in condition for allowance. Claim 8 is canceled. Claim 9 is amended to include an optical notch which is first discussed, in the specification as filed, at page 5 line 24. Applicant believes that both the novelty of the optical notch and the claim's dependency from claim 1 place claim 9 in condition for allowance. Claim 10 is not amended and continues to depend from 9. Claims 11-14 depend directly or indirectly from claim 1 and include a field regulator. Nothing cited makes any reference to or suggestion of a field regulator. Accordingly, the applicant believes these claims to be in condition for allowance.

Claim 26 is amended to include limitations to a geometry that includes a focusing mirror that places such a mirror in relationship to other portions of the sensor to accomplish ambient light rejection. Accordingly, claim 26 is believed to be in condition for allowance. Claims 27-37 all depend directly or indirectly from claim 26 and are therefore believed to be in condition for allowance.

Claim 38 is amended to include limitations to an aspheric mirror as part of the method that shields the receiver from ambient light. Accordingly, claim 38 is believed to be in condition for allowance. Claim 40 is new, depends from claim 38 and includes a limitation regarding an optical notch and therefore believed to be in condition for allowance.

Claims 41 and 42 are new, each depends from claim 26 and each includes a limitation regarding an optical notch and therefore believed to be in condition for allowance.

No new matter is believes to be added by any of these amendments.

In light of the foregoing amendments and remarks, allowance of all claims is respectfully solicited. If issues remain and the Examiner feels that it would expedite prosecution, the examiner is urged to call the undersigned.

Respectfully submitted,

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